



## CUSTOMER SUCCESS STORY

# IMPROVING SAFETY AND PRODUCTIVITY WITH A RUGGED NETWORKING SOLUTION

### SITUATION

A mining company in Canada hosts one of the world's largest land-based machines, the dragline. A lasting solution was needed to effectively monitor the dragline and keep the workers in and around the mining operation safe.

### TASK

- Improve safety with video surveillance
- Maximize productivity with access to large volumes of data
- Remain functional through the vibration and movements of the dragline

### ACTION

Redline installed the RDL-3000 Edge industrial broadband wireless system to backhaul data to connect the office and trucks around the mine. The Edge was installed directly on the dragline based on its ability to perform reliably despite the violent vibrations of the machine.

### RESULTS

After one year of continuous operation, Redline's solution is still operating reliably. It has:

- Resolved concerns about workers' safety
- Eliminated unplanned downtime and maximized productivity
- Helped the customer realize huge savings with a lasting solution

Deep in the province of Alberta is an open pit mine that hosts the largest land-based machine on earth — the dragline. This machine can excavate and hold 12 dump trucks worth of earth at once and weighs 6,800 tons.

Operating a machine of this magnitude poses unique challenges for both safety and productivity. The mine operator was in search of a way to collect data from multiple points in and around the dragline, including sensors that monitor every aspect of its operations and video images from blind spots. A reliable network solution was required to help teams on the ground communicate effectively with the team high up on the excavator, all in an effort to keep the machine operating at maximum efficiency while ensuring safety of the operators around it.

### SAFETY WITH EFFICIENCY

Draglines are the heart of this particular mine and all the production crews, trucks and equipment work around its schedule. A dragline is a high cost asset, costing approximately \$125 million per year and requiring specialized personnel to operate. The customer's top priorities were to ensure that these machines were operating with maximum safety measures, and at peak production levels, at all times.

The customer needed a communication system:

- To provide reliable communication for extensive video surveillance to keep the crew around the mine in constant view for safety purposes.
- With high capacity and low latency to monitor various alarms, sensors of the dragline and its weight load in real-time to maximize efficiency and productivity.
- To be rugged enough to withstand the vibration and constant rotation of the dragline and not break, causing unnecessary and costly downtime.

### MACHINE VS. MACHINE

Partnering with a qualified system integrator, Redline designed an industrial broadband wireless solution to backhaul the data to the corporate network

providing a flawless network for ground and mobile communication.

Because the dragline is a massive machine which handles enormous loads of soil and rocks, it vibrates violently during normal operation. Any communications equipment previously installed would inevitably break after one or two days of use.

The Redline RDL-3000 Edge was ultimately chosen for this project because of its capacity to provide reliable communications from the dragline to the rest of the mining operation. This ensured improvements to both safety and productivity. The Edge is so rugged it was installed directly on the arm of the largest dragline where it has enabled effective communication continuously and faultlessly ever since.



#### STILL PERFORMING SOLIDLY

After one year of continuous operation, the Edge is still operating effectively under the harsh conditions of the dragline and the customer is impressed with the results. The Redline solution has performed solidly with ample data capacity to enable the communication that is needed to make safe and informed decisions, including high definition video.

Designed to last, the Redline RDL-3000 Edge system, supported by Redline's Professional Services, will last for years to come, saving the customer a significant amount of money each and every year.



#### ABOUT REDLINE COMMUNICATIONS

Redline Communications is the creator of powerful wide-area wireless networks for the world's most challenging applications and locations. Used by Oil & Gas companies, militaries, municipalities and telecom service providers, Redline's powerful and versatile networks securely and reliably deliver voice, data, M2M and video communications for mission-critical applications.

302 Town Centre Blvd.  
Toronto, ON L3R 0E8 Canada

**w** [rdlcom.com](http://rdlcom.com) **t** +1.905.479.8344  
**e** [info@rdlcom.com](mailto:info@rdlcom.com) **tf** +1.866.633.6669

20150821 CSS-ABMINE2014 © 2015 Redline Communications Inc. All rights reserved.  
All logos and product names are the trademarks of their respective owners, errors and omissions excepted.

**redline**<sup>®</sup>  
communications